AFIS BACKGROUND

STRUCTURE OF AFIS

The program's primary functions are to:

1. *CAPTURE* fingerprints from suspects,
2. *STORE* fingerprints in databases,
3. *SEARCH AND IDENTIFY* individuals from fingerprints in order to
4. *SOLVE CRIMES* by identifying prints left at crime scenes, and
5. *SHARE* fingerprint and arrest data with other jurisdictions in order to build more complete criminal histories that will aid in crime solving and prosecution.

The following sections provide information on the operational details of each of the operational units that support these five functions of the Regional AFIS Program and the Administration Team that directs and organizes the program.

CAPTURE Fingerprints from Suspects

Live Scan is a means of capturing fingerprints and other identifying arrest data electronically; then transmitting it directly into local, state, and federal identification systems for processing. The first 22 Live Scan Capture Stations were installed in the year 2000. In 2005, the King County Regional AFIS Program supports 34 active Live Scan Capture Stations located throughout the county, eleven of which are capable of electronic palm capture. Of King County's total volume of fingerprint submissions into the AFIS Database, 97%[9] are transmitted via Live Scan. More than 80,000 Live Scan prints were taken at all sites in 2005. The remaining 3% of fingerprint submissions were received from Suburban Cities that capture inked prints, which are either mailed or submitted via fax for quick response on questionable identities.

<u>King County Regional Jail Identification Unit</u>

Six of the highest-volume Live Scan Capture Stations make up the King County Regional Jail Identification Unit, located at three county detention sites: the King County Correctional Facility in Downtown Seattle, the Regional Justice Center in Kent, and the Youth Services Center (Juvenile Detention) in Seattle. The Jail Identification Unit takes fingerprints, palm prints, and mug shots for all agencies that book suspects into these locations, including the Seattle Police Department. They also take DNA samples for certain offenses, as required by state law. The first goal of the Jail Identification Unit is to print 100% of inmates, so that the King County Sheriff Office (KCSO) and/or Seattle Police Department (SPD) Ten-Print Unit can identify them before they are released from custody.

[9] See Live Scan Electronic vs Inked Fingerprint Submittals by Agency, Appendices F and G.

The second goal of the Jail Identification Unit is to take the highest quality prints possible, capturing as much clear ridge detail as possible for the AFIS Database. Establishing expertise in fingerprinting has far-reaching effects. Staffing the jails with fully trained, dedicated AFIS personnel has improved the quality of the King County Regional AFIS Database, which has increased the possibility for "hits."[10] In turn, this ultimately increases warrants served on persons using false names ("liars"[11]), and crime scene cases solved by the Latent Print Units.

The King County Regional Jail Identification Unit consists of two Supervisors and 24 Identification Technicians.

In 2005, Identification Technicians took fingerprints and mug shots of 59,243 booked individuals. The Jail Identification Unit successfully obtained 100% of all available fingerprints from the King County Corrections Facilities, Youth Services Center, and the Regional Justice Center. Per state mandate, the Unit collected 2,138 DNA samples of in- and out-of-custody convicted felons and gross misdemeanants.

STORE Fingerprints on Databases

The infrastructure of the AFIS mainframe computer consists of three AFIS Databases and an Image Archive System that is housed at a Central Site within the Technical Services Division of the KCSO, and shared by the SPD and Bellevue Police Department through remote workstations.

- The Ten-Print Database currently stores thumbprints only for criminal or applicant searches. At last count, over 1,096,000 thumbprints (548,000 individual's records times two thumbs each) are registered in the AFIS Ten-Print Database.
- The Latent Cognizant Database is a repository containing all ten fingerprints for searching against crime scene or "latent" fingerprints. Both the Ten-Print and Latent Cognizant Databases include adult and juvenile criminal arrests, as well as any applicant prints allowed under RCW (taxi drivers, concealed weapons license applicants, criminal justice employee applicants, entertainers, etc.) It does not include applicant prints that must be collected for a background search, but excluded from storage (teachers, real estate agents, etc.). The Latent Cognizant Database is five times larger than the Ten-Print Database at 5,480,000 fingerprints.
- The Unsolved Latent Database stores unidentified latent prints retrieved from crime scene evidence. When new people are printed, their fingerprints are added to the Latent Cognizant Database and are searched against the Unsolved Latent Database to generate additional matches from the stored crime scene latent prints.

[10] "Hit" refers to a positive identification match between an AFIS-searched latent print and its corresponding AFIS Database fingerprint.

[11] "Liars" refers to people who use false names

At last count, there were over 32,000 prints in the Unsolved Latent Database.

Status Quo AFIS Technology consists of workstations for ten-print and latent print activities, and the Central Site AFIS Computer with its supporting infrastructure. Currently, KCSO and SPD utilize five Ten-Print Workstations (three at KCSO and two at SPD) for the purpose of receiving electronic fingerprints from Live Scan Capture Stations, searching and analyzing fingerprints, and notifying Live Scan Sites of positive identifications or "hits." Four Latent Workstations (two at KCSO, one at SPD, and one at Bellevue PD) are used for searching and analyzing latent prints from evidence and/or crime scenes.

The Central Site equipment is responsible for workflow management, including editing and updating arrest information, and electronically transmitting the records to Washington State Patrol (WSP), which subsequently transmits the records to the Federal Bureau of Investigation (FBI) for addition to the state and federal rap sheets (criminal history records).

Palm prints are collected in ink at the Jail Identification Unit. The Jail Identification Unit and four other high-volume suburban agencies have access to a Live Scan Capture Station that is capable of taking electronic palm prints, but those palms must be printed out for filing because no search or storage capability exists for electronic palm images. In the current AFIS System, palm prints are paper hard copies manually stored in filing cabinets until crime scene latent prints are submitted with a named suspect.

SEARCH AND IDENTIFY Individuals from Fingerprints

"Ten-Print" refers to the complete set of fingerprint impressions of the first joint area of all ten fingers, typically captured when a suspect is taken into police custody. The Ten-Print Identification Units complete all of the comparisons of fingerprints and verification of identity. In order to positively identify an individual, a search is made first by comparing the thumbprints taken at the Live Scan Capture Stations to the prints in the AFIS Ten-Print Database. AFIS uses the unique arrangement of ridge characteristics on a fingerprint to compare it to the known prints on file. The computer quickly produces a list of possible matches, usually in less than a minute. After the AFIS Computer provides a list of possible matches, a Ten-Print Identification Technician reviews the electronic (or inked) prints to make the final determination of whether the two fingerprints are a positive match. Suspects frequently give false names upon arrest, usually in an attempt to avoid outstanding warrants or to hide a criminal record that might prevent release from custody. Positive fingerprint identification reveals additional aliases and can verify conclusively whether the suspect is wanted in connection with other crimes.

<u>King County Sheriff's Office and Seattle Police Department Ten-Print Units</u>

The Ten-Print Units' main objective is to positively identify inmates prior to release from custody. It also ensures the subjects can be held responsible for any outstanding warrants obtained in other names given at the time of previous arrests.

The AFIS Ten-Print Operation consists of the KCSO Ten-Print Unit that is located in the King County Courthouse, and the SPD Ten-Print Unit that is located in the Seattle Justice Center. Both Units operate on a 24-hour, 7-day a week basis. In 2005, with Live Scan technology, the KCSO and SPD Ten-Print Units identified booked inmates within an average of 1.4 hours, usually within 18 minutes. For the year, the AFIS Ten-Print Units searched 90,091 inquiries, which included searches for all 39 cities in King County as well as Unincorporated King County.

Of the prints searched through the King County Regional AFIS Database, 59,243 were for King County Jail bookings. The total number of ten-print inquiries resulted in 1,058 individuals who had given false names ("liars). At least 302 of these were found to have outstanding wants/warrants equaling $3,236,220, plus 128 "No Bail" felony warrants.

The Ten-Print Units are also responsible for establishing and maintaining criminal history record information. By RCW, arrest information, accompanied by fingerprints, is to be sent to WSP within 72 hours of an individual's arrest. This information is then forwarded to the FBI.

The KCSO Ten-Print Unit also takes prints allowed under RCW, such as sex offenders, applicants, teachers, taxi drivers, and entertainers. However, only those prints allowed by law to be stored are registered into the AFIS Databases.

The AFIS-funded Ten-Print Unit staffing consists of:

	Supervisor	Identification Technician	Data Specialist Supervisor	Data / Administrative Specialist	Total
KCSO	1	15	1	12	29
SPD	2	10		9	21

In addition to the responsibilities mentioned above, the Ten-Print Units run many other types of inquiries and perform a variety of functions. These include but are not limited to:

- Fingerprinting individuals and/or receiving prints (via Live Scan or fax) upon request by police departments, at all hours, when an identity is in question. Includes out-of-county and out-of-state requests.
- Testifying to fingerprint comparison results in a court of law.
- Assisting any local, state, or federal law enforcement entity, the courts, and identity theft victims to correct records, verify warrants, and resolve problems.
- Processing evidence from property crimes and/or auto thefts for latent prints.
- Searching and processing applicant fingerprints for concealed weapons licenses, criminal justice employment, and other application purposes.
- Identifying deceased persons by fingerprints for the Medical Examiners Office.
- Taking and processing fingerprints of unidentified patients at Harborview

Medical Center.
- Establishing criminal history records on arrestees, including notifying WSP and the FBI of arrest information.
- Registering convicted sex offenders

SOLVE CRIMES by Identifying Prints Left at Crime Scenes

AFIS is crucial in identifying fingerprints left at crime scenes, known as latent (hidden) prints, in the attempt to solve crimes. The fingerprint expert uses a variety of powders, chemicals, lighting, and photographic techniques to make a latent print visible on physical evidence, and then records it permanently. Specially trained Latent Print Examiners search the latent fingerprint against the AFIS Database in an attempt to identify the person whose print was left at the crime scene.

In order to prepare a latent fingerprint for an AFIS inquiry, the examiner digitally scans a latent "lift"[12] or a photograph[13] of a latent print from physical evidence into a personal computer and enhances the image by adjusting the properties of the image, such as contrast, color, and density. The Latent Print Examiner traces out the ridges including the identifying characteristics using specific graphic techniques and then makes a printout of the tracing to initiate a search against the AFIS Database. The computer produces a list of possible matches, which are compared by the Latent Print Examiner for positive identification. In the event of a "hit," the Latent Print Examiner verifies the "hit" by checking the latent print against the corresponding inked or Live Scan-captured Ten-Print Card and notifies the detective in charge of the case. If a match is not found, the latent print is then registered to the Unsolved Latent Database. This database is searched every time a new Ten-Print Fingerprint Card is added.

Since the AFIS Computer went online in 1988, a total of 17,141 latent fingerprints have been identified through 2005.

<u>King County Sheriff and Seattle Police Latent Print Units</u>

The objective of the Latent Print Units is to search all AFIS quality latent fingerprints through the system and report back to the detective the results within 30 days. In 2005, the Latent Print Units met and beat this objective with a turnaround time of three weeks. Also included in the 30-day turnaround time are comparisons of latent prints to named suspects in a case. This is crucial when there are only latent palm prints in the case

[12] "Lift" refers to dusting the latent print with powder to make it visible, and then lifting it with tape

[13] Latent fingerprints are submitted to AFIS in two ways. Officers either submit lift cards, which are fingerprints the officers have lifted at the crime scene, or they submit physical evidence from crime scenes. Physical evidence can consist of any object found at the crime scene, such as guns, soda cans, tools, clothing, paper, etc. Lift cards are the result of evidence having already been processed at the crime scene and latent prints developed. Physical evidence submitted to the laboratory can require extensive processing in order to develop finger and palm prints, which may need to be recorded through photography for analysis and search purposes.

because the current AFIS Computer does not have palm search capability.

Work is generated in the Latent Print Units by the submission of evidence and latent lift cards from Latent Print Examiners, Detectives, and/or Officers from their respective police departments. SPD handles incoming work from its police department and for the University of Washington PD. KCSO handles incoming work from its precincts, contract cities, and all suburban police departments. The only exception is the Bellevue Police Department, which has opted to handle its own latent workload and has been provided with a Latent Workstation through the Regional AFIS Program.

In 2005, the Regional AFIS Latent Print Units received 10,646 incoming case submissions:

- 1,994 King County Sheriff Office cases
- 4,354 Seattle Police Department cases
- 2,097 Contract City cases
- 2,201 Suburban Police Department cases

As a part of processing these case submissions:

- 7,135 latent inquiries were made into King County Regional AFIS Latent Cognizant Database
- 13,186 searches were made into other systems[5]
- A total of 3,253 suspects were positively identified from latent prints
  - 1,770 AFIS "cold" hits were identified (where a suspect name was not available)
  - 1,483 manual identifications were made (where a suspect name was available)
- 161 crime scene call-outs were completed

The AFIS-funded Latent Print Units staffing consists of:

	Latent Print Supervisor	Latent Print Examiner	Administrative Supervisor	Administrative Specialist	Total
KCSO	1	16	1	6	24
SPD	1	11		2	14

In addition to the duties stated above, Latent Print Examiners perform a variety of tasks, including some or all of the following:

- Assisting major crime detectives in locating possible prints and markings on deceased bodies with the use of an alternate light source.

[5] Other systems include: Washington State Patrol (WSP), Federal Bureau of Investigations (FBI), California Department of Justice, Orange County Sheriff's Office, and Western Identification Network (WIN)

- Assisting the Medical Examiners Office in obtaining and identifying partial ridge detail from deceased persons.
- Training deputies and officers in proper procedures for the recovery and handling of latent prints.
- Two Latent Print Examiners are hazardous materials-trained to process clandestine drug labs.
- Testifying in court regarding latent print findings.
- Assisting detectives from local, state, and federal law enforcement agencies in processing evidence with chemicals, alternate light source, and photography for trace, latent, and patent (blood) prints.
- Training Identification Technicians in processing evidence from property crimes and/or auto thefts.
- Photographing evidence and/or latent prints.

SHARE Fingerprint and Arrest Data with Other Jurisdictions

The AFIS Computer communicates with Washington State Patrol (WSP) and through them with the Federal Bureau of Investigation (FBI), to add the latest arrest information to the individual suspect's criminal history record (rap sheet). WSP and the FBI will only accept this information for entry to the rap sheet if it is accompanied by verifiable fingerprints. By RCW, arrest information and fingerprints must be sent to the WSP within 72 hours of an arrest. The King County Regional AFIS Program was unable to meet this timeline prior to Live Scan Technology implementation. Currently, on average, it takes under two hours from the time a person is booked for their arrest record to be transmitted to WSP.

When local searches are unsuccessful, fingerprint experts in the Ten-Print and Latent Print Units are also able to electronically search other databases, such as those at WSP, FBI, California Department of Justice, Orange County (California) Sheriff's Office, and the Western Identification Network.

Courts, correctional facilities, law enforcement agencies, businesses, and citizens also rely on AFIS data to identify criminal history information for multiple purposes:

- Sentencing and release considerations
- Determination of public and officer safety threats
- Police investigations
- Hiring considerations (i.e., teachers, healthcare workers, or other occupations requiring unsupervised work with children, handicapped individuals, and the elderly).

Administrative Team

In order to accomplish the five functions of AFIS, there is an Administrative Team whose

objective is to:

- Ensure all participants within the Regional AFIS Program are meeting their objectives of completing workload in a timely manner with the utmost quality, accuracy, and service provided to customers.
- Manage the acquisition, budget, maintenance, and use of AFIS and Live Scan Technology throughout the county. Ensure vendor compliance with all contract requirements.
- Ensure that all technology and procedures comply with State and National Standards.
- Create the foundation for future regional information-sharing projects.
- Optimize communications between KCSO, SPD, and Suburban Police Departments.
- Ensure telecommunications and networking needs are met for the County and State Intergovernmental Networks as well as for the local police departments.
- Coordinate and provide technical training and helpdesk support for all AFIS/Live Scan customers throughout the county.

The AFIS-funded Administrative Team staffing consists of:

	Regional AFIS Program Manager	Admin Support	Project and Operations Managers	IT/Network Admin	Customer Training and Support	Total
KCSO	1	3	3	1	2	10
SPD	1	1				2